

XX. *Characters of two Species of Tordylium.* By Sir James
Edward Smith, M.D. F.R.S. P.L.S.

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I HAVE lately had occasion to remark, in preparing for the Linnæan Society a botanical essay on *Tofieldia*, that scarcely any considerable genus could be taken at random, which would not afford matter for such a dissertation. I had not proceeded far in the alphabetical course of my botanical labours for Dr. Rees's *Cyclopædia*, before an instance of this presented itself, in the long-established and well-known genus *Tordylium*, some of whose species have hitherto never been clearly determined. Our popular guides, such as Willdenow, have left the subject in the same state in which they found it. The details into which I find myself obliged to enter, are beyond the scope of the work above mentioned, and may not prove unworthy of the notice of the learned body whose attention I shall now, for a few minutes, solicit.

The species of *Tordylium* which will come under our examination at present, are chiefly *officinale* and *apulum*, with the *humile* of Desfontaines; except some incidental notice of the Linnæan *peregrinum*, and of Scopoli's *siifolium*.

T. apulum is mentioned by Linnæus in his *Hortus Cliffortianus* 90. n. 3, under the following character and synonyms.

T. umbellulis remotis, foliis pinnatis, pinnis subrotundis laciniatis.

T. apulum. Rivin. *Pentap. Irr. t. 2.*

T. apulum

T. apulum minimum. *Column. Ecphr.* p. 1. 122. t. 124. *Tourn. Inst.* 320. *Raii Hist.* 412. *Moris. Hist.* v. 3. 316. sect. 9. t. 16. f. 6.

Seseli creticum minimum. *Bauh. Pin.* 161.

A variety is subjoined from Boerhaave's *Hort. Lugd. Bat.* concerning which nothing can be ascertained; and as Linnæus never again adverted to this supposed variety, we must leave it undetermined.

In the first edition of *Sp. Pl.* 239, the *Tordylium* in question appears with the specific name *apulum*, and the above essential characters, with a reference to *Hort. Cliff.* and to Van Royen's *Prodr. Lugd. Bat.* 94. But its other synonyms are limited to *Columna* and *Bauhin*, as above cited.

Now it appears that the synonyms of *Columna* and *Rivinus* belong to two very different plants. Which of these is to be taken for the *T. apulum* of Linnæus? There being no specimen in his herbarium, the specific character must be resorted to as our safest guide, and this agrees with the plant of Rivinus, not of *Columna*; "*pinnis subrotundis laciniatis.*" Such was doubtless the plant of the *Hortus Clifortianus*, which appears by the *Viridarium Clifortianum* to have been cultivated at Hartecamp, and was therefore seen alive by Linnæus. Such likewise is *T. apulum* of Jacquin, *Hort. Vindob.* v. 1. t. 53, which that author afterwards finding not to answer to the synonym of *Columna*, he thought he had mistaken the Linnæan name, and in the 3d volume of the same work, p. 2, he refers his plant to the Linnæan *T. officinale*.

On the contrary, it appears to me that *Columna*'s figure represents merely a starved variety of *officinale*, under which species I have long ago quoted it, with a mark of doubt, in *Fl. Brit.*; and that Jacquin has described the genuine *apulum* of Rivinus and Linnæus.

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These species are clearly distinguishable by a character which, though faithfully indicated by Rivinus and Jacquin, has not been fixed upon by any botanist as a specific mark. In *T. officinale* the radiant or dilated part of the marginal flowers consists of two neighbouring petals, each of which has one large, and one very small, lobe; in *T. apulum* there is only one radiant petal to each flower, whose two very large lobes are equal. I would therefore propose the following definitions of the two species in question:

T. officinale, involucellis longitudine florum, foliolis ovatis incisim crenatis, petalis radiantibus geminis inæqualitèr bilobis.

T. apulum, involucellis flore brevioribus, foliolis laciniatis; superioribus angustatis, petalis radiantibus solitariis æqualitèr bilobis.

The synonyms of the former are correctly given in both editions of *Sp. Pl.* as well as in *Fl. Brit.* 294; to which are to be added *Engl. Bot. t.* 2440, and the unpublished figure in *Fl. Græc. t.* 267. There is every reason to suppose this the original *Τορδύλιον* of Dioscorides. If Columna had been as exact as usual, his figure would have left us in no doubt respecting the character of the petals. But as it is, enough may be discerned for our purpose; and the form of the leaves, the length of the partial involucre, and the figure of the seed, all agree with *T. officinale*, not with *apulum*.

To the latter belong the synonyms of *Riv. Pentap. Irr. t.* 2, and *Jacq. Hort. Vind. v.* 1. 21. *t.* 53; which last is quoted in MSS. by Linnæus in his own copy of *Sp. Pl.* This is likewise *T. apulum* of *Prodr. Fl. Græc. n.* 631, from which however must be removed the reference to Columna, and consequently the synonym of Tournefort depending thereon; *Jacq. Hort. v.* 1. *t.* 53, being introduced in their stead. Bauhin's *Seseli creticum minimum* also, being adopted from Columna, belongs to *T. officinale*.

I cannot but consider *T. humile* of Desfontaines, *Fl. Atlant.* v. 1. 325. t. 58, as indubitably *T. apulum*. It accords exactly in size and habit with Dr. Sibthorp's Greek specimens. Willdenow, by some accident, has not adverted to this plant.

Scopoli's *T. siifolium*, *Fl. Carn. ed.* 2. v. 1. 194. t. 8, comes very near to our *apulum*, agreeing in the solitary radiant *petal*, with two equal lobes. But the *flowers* are red, not white; the *leaflets* broader, less divided, and more uniform; and the *fruit* bristly, which last may afford a good specific character. The *general involucre* moreover is said to consist of only one or two small leaves.

I cannot conclude these remarks without adverting to *T. peregrinum*, *Linn. Mant.* 55. *Sm. Prodr. Fl. Græc.* Sibth. n. 633. This is *Conium dichotomum* of Desfontaines, *Fl. Atlant.* v. 1. 246. t. 66, who seems not aware of its being a Linnæan plant. Its seeds indeed bear some resemblance to those of a *Conium*; and the *flowers*, which the able author just cited never saw, are uniform, scarcely radiant. The habit and foliage agree with *Conium* rather than with *Tordylium*. But, on the other hand, the character of the *involucella dimidiata* is not observable, and the crisped margin of the *seeds* answers better to *Tordylium*, though their strongly 3-ribbed disk is adverse, and rather belongs to *Conium*. To the latter genus I should perhaps consent to remove this species. Professor Sprengel, in his *Prodr. Plant. Umbellif.* 12 & 21, refers it to *Cachrys*; but I cannot discover any peculiar coat to the seed, which, according to that learned writer's own principles, might justify such a measure. It is remarkable that he distinguishes the plant of Linnæus from that of Desfontaines, though certainly without any foundation.

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J. E. SMITH.